

CLAIMS

1. Genes which code for glycosyl hydrolases having an HCA score with the  
iota-carrageenase of *Alteromonas fortis* which is greater than or equal to 65% over  
5 the domain extending between amino acids 164 and 311 of the protein sequence  
SEQ ID No. 2 of said iota-carrageenase.
2. Genes according to claim 1 wherein the HCA score is greater than or equal  
to 70%.
3. Genes according to claim 1 wherein the HCA score is greater than or equal  
10 to 75%.
4. Gene according to claim 1 which codes for the  $\iota$ -carrageenase of  
*Alteromonas fortis* and comprises the nucleic acid sequence SEQ ID No. 1.
5. Genes which code for glycosyl hydrolases having an HCA score with the  
kappa-carrageenase of *Alteromonas carrageenovora* which is greater than or equal  
15 to 75% over the domain extending between amino acids 117 and 262 of the protein  
sequence SEQ ID No. 6 of said kappa-carrageenase.
6. Genes according to claim 5 wherein the HCA score is greater than or equal  
to 80%.
7. Genes according to claim 5 wherein the HCA score is greater than or equal  
20 to 85%.
8. Gene according to claim 5 which codes for the  $\kappa$ -carrageenase of  
*Cytophaga drobachiensis* and comprises the nucleic acid sequence SEQ ID No. 7.
9. Use of the genes according to any one of claims 1 to 8 for obtaining  
glycosyl hydrolases by genetic engineering.
- 25 10. Use of the gene according to claim 4 for obtaining the iota-carrageenase of  
*Alteromonas fortis* by genetic engineering.
11. Use of the gene according to claim 8 for obtaining the kappa-carrageenase  
of *Cytophaga drobachiensis* by genetic engineering.